

GUIDANCE DOCUMENT

SELECTING AN ENVIRONMENTAL

ANALYTICAL LABORATORY



Prepared by

Laboratory Services Branch

Ministry of Environment

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1.0 INTRODUCTION

1.1 SCOPE

The Ministry of Environment (MOE), Laboratory Services Branch (LSB) has developed these standard guidelines for contracted environmental laboratory testing services to provide guidance in how to select a laboratory and to contribute to an increased level of consistency and value to this process. These guidelines are based on the MOE experience of contracting out testing services and provides recommendations on drafting a Request for Proposal, assessing laboratory performance, data quality and quality management and setting up a contract.

The objectives of this guideline are to ensure that services and information from contracted laboratories are delivered to the specified quality; to recommend the appropriate assignment of personnel for contracting; and to simplify the contracting process.

1.2 LIMITATIONS

The contents of this guide are based upon the practical experiences of LSB staff in contracting for laboratory testing services from the private sector and standard administrative and management process devised by the LSB in consideration of MOE policies and protocols. As such, some of the roles, steps, activities may or may not be applicable to all situations encountered by the user of this guide.

1.3 DISCLAIMERS

The appropriate selection and effective use and application of any of the recommendations in this guideline are at the sole discretion of the reader. The MOE and LSB may provide assistance in the contracting process and in laboratory selection by the contracting agency remains responsible for the implementation of a contract process, the management of a contract laboratory and the quality or consistency of services and data obtained.

These guidelines do not intend to restrict the conditions that must be stated in a contract for laboratory testing services, but rather to define a set of standard, recommended, minimum conditions.

Analytical terminology as defined by the Canadian Association of Environmental Analytical Laboratories (CAEAL), the environmental laboratory accreditation agent for the

Standards Council of Canada (SCC), is used in this guide unless otherwise stated. This allows referencing a common set of terms and is not intended to promote the exclusive use of this terminology.

The use of specific trade names and/or product descriptions are for demonstration purposes only and are not intended as an endorsement by the MOE or LSB.

2.0 LABORATORY CERTIFICATION & ACCREDITATION

The Canadian Association for Environmental Analytical Laboratories under the Standards Council of Canada (SCC/CAEAL) was formed in 1989 on the initiative of the MOE, Environment Canada National Water Research Institute (NWRI) and a number of other public and private sector laboratories. Its principal objective is the promotion and maintenance of a strong environmental laboratory community within Canada by providing certification and accreditation programs to member laboratories. Certification involves satisfactory performance on Performance Evaluation samples while accreditation includes a site visit by CAEAL auditors.

A number of other agencies such as the New York State Department of Health also provide accreditation programs.

<p>IT IS STRONGLY RECOMMENDED BY MOE/LSB THAT ALL ENVIRONMENTAL LABORATORY SERVICES WORK BE CONTRACTED TO LABORATORIES WHOSE TESTS ARE ACCREDITED OR CERTIFIED BY A NATIONAL AGENCY SUCH AS SCC/CAEAL (see Appendix A)</p>
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The contracting agency should review the list of tests and matrices for which the laboratories hold accreditation or certification prior to contracting out analytical services.

3.0 ROLES & RESPONSIBILITIES

The following roles and responsibilities are modelled on the system used at MOE.

3.1 CONTRACT ADMINISTRATOR

This person is responsible for the administrative aspects of the contracting program which include:

- drafting the Request for Proposal (RFP), in consultation with the technical liaison officer and sending it to the purchasing officer for distribution to competing laboratories;
- participating in the bidders' meeting;
- evaluating the proposals, with the technical liaison officer and at least one other staff member and sending to the purchasing officer the group's selection as the contract laboratory for the work;
- drafting the contract (Letter of Agreement), with the technical liaison officer and sending it to the purchasing officer for signature;
- checking invoices and sending them to accounts payable for payment.

3.2 TECHNICAL LIAISON OFFICER

The liaison officer:

- is responsible for technical and scientific details of the contract work, and the day to day quality management of the laboratory services;
- prepares any inter-laboratory comparison samples, if applicable, evaluates and accepts all data;
- participates in the bidders' meeting;
- participates in drafting the RFP and the contract, and in evaluating the proposals received;
- serves as the scientific and technical liaison for the contract laboratory.

3.3 PURCHASING OFFICER

The purchasing officer or procurement manager:

- sends the RFP to competing laboratories;
- sets up the bidders' meeting if required;
- receives the evaluator's recommendation of the laboratory selected for the work, queries their choice based on cost, if necessary;
- obtains signatures of representatives of the laboratory and of the contracting agency; original copies are provided to the laboratory, the contract administrator and the purchasing officer.

3.4 CONTRACT LABORATORY CUSTOMER SERVICES

The contractor names a staff member to:

- act as liaison on laboratory services with the technical liaison officer and as a point of contact for referral of the contract administrator and purchasing officer;
- attend all contract bidding functions and coordinate the laboratory submission of the proposal for services;
- provide liaison for all enquiries, the provision of all sampling, container, preservation, test selection and laboratory submission protocols and coordinate all laboratory responses to problem resolution;
- ensure prompt pick-up of samples (or arrangements as agreed to during negotiations) and reporting of results;
- ensure timely and accurate invoicing.

4.0 THE CONTRACT PROCESS

The contracting process described below is provided as a guideline and an indication of some important points which a contracting agency might want to include in a request for proposal and contract.

4.1 CONTRACT CONTENT CONSIDERATIONS (Appendix B)

After a recommended laboratory contractor has been identified and before any contractual arrangement, it is wise to invest time consulting with the contracting laboratory to define the basic rules of the contract. Discussing this information in advance, stating and clarifying expectations and limitations, and having this information written down, can save a lot of misunderstanding and confusion. Based on the content of the MOE contract and extensive experience with the contract laboratory process, it is recommended that consideration be given to the following elements of any contract:

Appointment: the contracting agency appoints the "contractor" to perform the work as described in the contract.

Costs: are requested and itemized for each unique combination of test (eg pH, BOD) and sample type (eg water, effluent, soil). Costs are applied for the duration of the contract, including options to renew and any tiered costing structures for different turnaround times, combinations of tests or different quantities of samples, if applicable.

Sample Protocols: usually specified or provided in consultation with the contract laboratory including sampling procedures, containers used, preservation needs, shipping and sample logistics.

Data Quality: expectations such as detection limits, precision and accuracy, and spike recovery should be specified.

Payments: describes the payment terms, invoicing frequency, hold back provisions in case the work is not performed to the contracting agency's satisfaction, financial recording requirements.

Turnaround times: for most contract testing services, the contracting agency will establish or negotiate a typical and maximum allowable turnaround time (TAT) for the laboratory to report the results of its testing. These turnaround times are established based on a number of criteria, which in order of importance include: sample perishability, contractor program delivery needs, laboratory test time, volume of samples, and practical issues of costs, communications (mail versus FAX or electronic transmission) and distance.

Penalties for delays: for cases where the contractor does not deliver the data within the stipulated turnaround time, penalties may be levied as described in this section.

Repeat analyses: the contracting agency may request repeat analyses in cases where the data quality is of concern, e.g. where the reported data is not comparable to historical data patterns or where QC or check sample results are deficient. If the result is later demonstrated to be inaccurate or erroneous as a result of a problem in the laboratory, the cost of the repeat analysis is borne by the laboratory.

Reporting: describes the format and content required for data reports from the laboratory. This should include any requirements and needs for compatibility of tables, presentation and electronic/ computer spreadsheet already in use by the contractor.

Premature termination: lists circumstances for cancellation of the contract in advance of the agreed period of work.

Liability, security, confidentiality, property: lists "patent rights", ownership of the samples and data, waivers, etc.

MOE STRONGLY RECOMMENDS THAT ANY CONTRACT FOR ANALYTICAL TESTING OF WATER WORKS SAMPLES INCLUDE THE FOLLOWING REQUIREMENT:

IN THE CASE WHERE A SAMPLE RESULT FOR A PARAMETER DESIGNATED AS HEALTH-RELATED IN THE ONTARIO DRINKING WATER OBJECTIVES IS ABOVE A CERTIFICATE OF APPROVAL LIMIT OR AN ONTARIO DRINKING WATER OBJECTIVE, THE CONTRACTED LABORATORY MUST IMMEDIATELY INFORM THE LOCAL MEDICAL OFFICER OF HEALTH, THE MOE DISTRICT OFFICE AND THE CONTRACTING AGENCY OF THE EXCEEDANCE.

4.2 TENDERING

The following performance measures help assess the effectiveness and efficiency of the analytical service.

- **QUALITY:** receiving analytical data of acceptable quality on the matrices specified.
- **TIME:** receiving analytical data within a time frame that will meet your needs.
- **EFFECTIVENESS:** ensuring that the laboratory uses state-of-the-art methodologies which will provide data compatible with that you have been receiving from the Ministry of Environment and that all your program needs can be met.
- **TRACEABILITY:** ensuring that all methods, quality control protocols and data are adequately documented.
- **EFFICIENCY:** ensuring the availability of operational back-up analytical instrumentation to prevent gaps in your data or delays in receiving your data.

- **ACCREDITATION:** laboratory accreditation provides an indication of laboratory proficiency in performing specified tests through on-going evaluation of laboratory performance and preference should be given to laboratories whose tests are accredited or certified.
- **COST:** analytical costs should be considered in relation to quality of service and data.

The process by which analytical work is contracted will vary depending on the contracting organization. Granting of a contract should be done through a competitive bidding process (tendering) to ensure equal opportunity to all laboratories.

Below is an example of the MOE tendering process and the documentation it requires when contracting analytical work to a private laboratory.

4.2.1 Letter of Invitation

A **Letter of Invitation** (Appendix C) is prepared by the contract administrator and technical liaison officer after the project has been approved for contracting. This is the first step of the tendering process and it provides an opportunity for all interested vendors, with the appropriate capability, to place a bid for the work required. The **Letter of Invitation** is sent to a list of potential private laboratories, preferably those with accreditation or certification for the required tests.

The Open Bidding Service (OBS) is an on-line database accessible by modem or by the Internet which provides information about goods and services offered and/or purchased by private and public sector companies. Advertising analytical services needs on the OBS may provide a quick match with suitable laboratory services suppliers. More information is available by dialling, toll free, 1-(800) 361-4637.

The MOE strongly recommends that accredited laboratories, such as those listed in Appendix A, extracted from the Directory of Accredited and Certified Laboratories published by the Canadian Association for Environmental Analytical Laboratories (SCC/CAEAL), receive primary consideration. This directory is updated yearly and a current directory may be obtained from CAEAL prior to sending out the RFQ's (see Section 7.0).

4.2.2 Request for Proposal (RFP)

A **Request for Proposal** (Appendix D) is prepared by the contract administrator for release to the private laboratories identified above. The RFP and associated terms of reference, is a tool used to assist both the supplier and customer in

communication, controlling and evaluation of the quality of the service provided. This document, together with a service agreement drafted later, will ensure a negotiated, customer-specific arrangement with the laboratory which is designed to meet your program needs. The RFP, with the documents indicated below, is submitted to the appropriate authorities for approval signatures and then distributed to the laboratories.

- ▶ memorandum requesting approval to tender
- ▶ purchase requisition
- ▶ vendor list
- ▶ proposal evaluation sheet (Appendix E) with weighting identified

A bidders' meeting is held a pre-determined number of working days following the release of the RFP and attendance is mandatory for those interested in bidding on the contract. The meeting enables potential vendors to ask questions and obtain clarification on the information presented in the RFP. Every effort is made to treat all bidders equally with respect to inquiries made following the meeting.

4.2.3 Proposal Evaluation

The proposals are assessed using a value point system. Scores are assigned based on scientific, technical and practical merits as well as cost, using a **point system** such as that shown in Appendix E. The requirements outlined in the RFP form the basis for evaluation. A short-list of vendors, which may be subjected to a more detailed audit, is prepared based on the scores received on the proposal evaluation.

Those laboratories who do not pass this stage of the contracting process should be notified and offered a de-briefing if requested as to why they were unsuccessful. While this takes additional time, it will ensure that laboratories are aware of your opinions allowing them to take corrective actions and will contribute to overall performance and quality improvements. A laboratory who does not pass review on one contract deserves every opportunity to bid on future contracts.

4.2.4 Laboratory Performance Audit and Selection

As the final stage of the selection process, the project technical liaison officer and quality assurance officer assess the performance of the short-listed laboratories by one of the methods listed below:

Performance evaluation documents

The contracting agency may request from each short-listed laboratory the accreditation or certification documents issued by SCC/CAEAL or other agencies and base laboratory selection on this review.

Typical samples compared to historical data

Where historical data is available, the contracting agency may plot the historical data for their samples on a **control chart**, then at least four samples, typical of those for which they have historical data, are sent to each short-listed laboratory for analysis. Results obtained by the private laboratories are plotted on the control chart containing the historical data and the results evaluated. The best performer in this evaluation is selected as the contract laboratory. An example of control charting is provided in Appendix F.

Inter-comparison study

The contracting agency may set up an inter-comparison study involving standards or standard reference materials which they send to each short-listed laboratory for analysis and base their laboratory selection on their evaluation of the results. The MOE can provide additional references on the design and management of inter-laboratory studies.

The contracting agency may also wish to consider on-site visits by the technical liaison officer to assist in their assessment of the contract laboratory's capability to meet their program requirements.

4.2.5 Contract Award

The performance of potential vendors on inter-comparison samples, proposal evaluations and on-site visits are of primary concern when selecting the laboratory. If all performance components are satisfactory, then price is considered. (see Appendix E).

The contract administrator recommends the successful laboratory and prepares documentation for approval of the contract consisting of the following:

- ▶ RFP including terms of reference
- ▶ memo requesting approval to award contract (Appendix A, #3)
- ▶ laboratory selection process and justification (Appendix A #4)
- ▶ results of performance evaluation/inter-comparison studies
- ▶ Letter of Agreement (Appendix G)

The service agreement (letter of agreement, contract) should refer to the terms of reference to define the scope of the project. It should state:

- ▶ the two parties entering into the agreement
- ▶ outline measurements of performance
- ▶ the service provider's and the client's responsibilities
- ▶ the financial arrangements
- ▶ non-performance implications and dispute resolution
- ▶ terms of the agreement
- ▶ security, confidentiality and document management issues
- ▶ liability.

This package is submitted to the appropriate signing authorities for approval and then forwarded to the Purchasing Department. A purchase order is issued to the successful vendor. The successful laboratory is notified as are the unsuccessful bidders who may request a de-briefing.

5.0 PERFORMANCE MANAGEMENT

5.1 DATA QUALITY

Once the contract laboratory begins analysis, the following activities are recommended to monitor and maintain data quality:

- introduce additional quality control samples, at a level around 10 percent of the sample workload, such as blanks, field duplicates and/or split samples;
- screen all the reported data and request clarification and/or repeat analysis when required;
- control chart data received to help identify anomalous data or bias in the data (see Appendix F).

In some cases, the contracting agency may wish to visit the laboratory to discuss any concerns, seek clarification and gain a better understanding of the contract laboratory's operations.

5.2 WORKLOAD, COST AND TURNAROUND TRACKING

For each contract, a workload tracking and a costing report should be generated monthly, containing the costs of sample analysis, turnaround time for results and penalties for late reporting, if applicable.

5.3 LATE PENALTIES

Most environmental testing laboratories strive to provide good customer services including consistent and appropriate data quality and reasonable turnaround times. However, circumstances such as seasonal workload peaks can affect the delivery of services. In these cases and with full discussion and participation by the contract laboratory, the MOE calculates two late penalty levels: 5% of test cost per week late to a maximum of 20% of test cost for routine projects or 20% of test cost/day when a short turn-around time is essential. The penalty clause is implemented if the results are not received within a specified time period after a written warning of the impending penalty is sent to the laboratory. Inclusion of a penalty clause in the contract is at the discretion of the contracting agency.

6.0 ADMINISTRATIVE PROCEDURES

6.1 SIGNING AUTHORITIES

For MOE approval, signatures are obtained on all purchase requisitions, contractor agreements and contract amendments. The costs of the purchase requisition refer to the entire period of the contract and include contingency funds.

All invoices submitted under the contract are approved for payment by the technical liaison officer to verify data quality and the contract administrator prior to being sent to Accounts Payable for payment.

6.2 CONTINGENCY FUNDS

A contingency fund of up to 10 - 15% of the annual purchase order allotment is included in all contracts to allow for unforeseen increases in workload. The contingency fund is implemented by a memo.

6.3 OPTION-TO-RENEW CLAUSE

It is recommended that multi-year contracts be established, e.g three years is the norm for MOE. If this is not possible, a one year contract with option to renew for two additional years at the contracting agency's discretion may be set up.

To implement an option-to-renew for an additional year, the following procedure has been followed by MOE:

- A covering letter is prepared which requests contract renewal for an additional year at the cost stated in the original agreement for that year. The original requisition and a progress report from the technical liaison officer are attached.
- The time frame of the original purchase order is extended to allow for full use of the existing allotment prior to use of the new purchase order.

NOTE: Test costs are typically fixed for the duration of a contract. Increases are allowed ONLY when the original contract is renegotiated or if substantial, mutually agreed to, changes to methodology are made during the course of the agreement.

6.4 CONTRACT AMENDMENTS

The MOE uses two types of contract amendments: 1) those which contain an increase to the cost of the original contract and; 2) those in which no increase in funds are associated with the amendment.

1) Purchase Order Funds Amended:

An amendment for up to 50% of the original contract price to accommodate new workloads requires the following procedure at MOE:

- a memo documenting reasons for the amendment;
- a new requisition to amend the contract, stating the new cost;
- a new contract agreement which includes any new conditions;
- a letter from the contract laboratory indicating that test costs will remain the same; price changes are not negotiable.

2) Purchase Order Funds are Unchanged:

A memo is prepared requesting changes to existing contracts which do not alter the original purchase order funds. This type of situation may arise from a change in workload submitted to the laboratory. This may also occur if a task which was agreed upon by the contract laboratory was omitted from the RFP due to an oversight. On occasion the time frame of the contract is extended to allow use of remaining funds. A memo is prepared outlining the new time period and reasons

for the extension. A letter from the contract laboratory is obtained indicating that test costs will remain unchanged.

7.0 ADDITIONAL SUPPORT

Performance evaluation

Performance evaluation samples are available from a number of agencies including:

Canadian Association of Environmental Analytical Laboratories (CAEAL),
1 Nicholas Street, Suite 532,
Ottawa, Ontario
K1N 7B7
Contact: Nina Morgan (613) 562-2200

National Water Research Institute (NWRI),
P.O. Box 5050, CCIW,
Burlington, Ontario
L7R 4A6
Contacts: Harry Alkema (905) 336-4929 (Inorganics)
Yvonne Stoker (905) 336-4869 (Organics)

Analytical Products Group,
2730 Washington Blvd.,
Belpre, Ohio 45714
U.S.A.
Tele: 1-800-272-4442

Environmental Resource Associates
5440 Marshall Street
Arvada, Colorado 80002
U.S.A.
Tele: 1-800-ERA-0122

Certified Reference Materials (CRMs) are available from several agencies which include:

National Research Council of Canada

National Institute of Standards and Technology (U.S.A.)

Environmental Protection Agency (USA)

Staff of the Quality Management Unit of MOE, Laboratory Services Branch may, upon request, provide assistance in assessing laboratory performance including:

- site visits to discuss contracting with municipal staff;
- workshops
- provision of performance evaluation samples (Contact Customer Services at (416) 235-6030).

8.0 APPENDICES

The following appendices provide examples of memos and forms used by MOE when contracting analytical work to the private sector. The user may or may not require all documentation shown here. Of utmost importance, however, is ensuring adequate documentation of all elements of the tendering process, agreements made between the contract laboratory and the contracting organization, and performance monitoring of the contract laboratory. Additional information included are the MOE data reporting and interpretation practices.

APPENDIX A - DIRECTORY OF ACCREDITED AND CERTIFIED LABORATORIES

The MOE strongly recommends the use of a certified or accredited laboratory. This list of Ontario laboratories has been taken from the "Directory of Laboratories in the SCC/CAEAL Accreditation Program for Environmental Laboratories" and the CAEAL "Directory of Certified Laboratories", effective October 1997.

The list of CAEAL accredited and certified laboratories provided in this appendix may not be the most current at the time of reading. MOE encourages viewing the most current list at the Internet site WWW.CAEAL.CA or obtaining a copy from Nina Morgan at Canadian Association of Environmental Analytical Laboratories, 1 Nicholas Street, Suite 532, Ottawa, Ontario K1N 737. It is to be noted that some laboratories may have additional certifications or accreditations that are not listed here.

LABORATORY	CONTACT	REGISTERED MATRICES
A & L CANADA LABORATORIES EAST 2136 Jetstream Road London, ON N5V 3P5	Dr. Rob Deakin (519) 457-2575	- soil/sediment - water (organic) - water (inorganic)
AECL RESEARCH, GENERAL CHEMISTRY BRANCH Chalk River, ON K0J 1J0	Dr. Janis Gulens (613) 584-3311	- water (inorganic)

LABORATORY	CONTACT	REGISTERED MATRICES
ACCURASSAY LABORATORIES 3 Industrial Drive P.O. Box 426 Kirkland Lake, ON P2N 3J1	Mr. George Duncan (705) 567-3361	- air filter - water (inorganic)
ACCUTEST LABORATORIES LTD. 146 Colonnade Road, Unit 8 Nepean, ON K2E 7Y3	Mr. Peter Haulena (613) 727-5692	- oil - soil - water (inorganic) - water (microbiology) - water (organic)
ACRES ANALYTICAL LTD. 360 York Rd., Unit 1 & 2 Niagara-on-the-Lake, ON L0S 1J0	Mr. Jason Oatley (905) 687-8378	- oil - soil/sediment - water (inorganic) - water (organic)
ACTIVATION LABORATORIES LTD. 1336 Sandhill Drive Ancaster, ON L9G 4V5	Dr. Eric Hoffman (905) 648-9611	- soil - water (inorganic)
AGRA EARTH & ENVIRONMENTAL LTD. 160 Traders Blvd., Unit 4 Mississauga, ON L4Z 3K7	Mrs. S. Punani (905) 858-3333	- air filter - oil - water (inorganic) - water (organic)
ANALYTICAL SERVICES LABORATORY 8540 Keele St., Unit 38 Concord, ON, L4K 2N2	Mr. Gary Gerritse (905) 660-5171	- air filter - water (inorganic)
AQUATIC SCIENCES INC. 45 Hanover Drive P.O. Box 2205, Stn. B. St. Catharines, ON L2M 6P6	Mrs. Sandra Hilliker (905) 641-0941	- water (toxicology)
AQUATIC TOXICOLOGY RESEARCH CENTRE (A.T.R.C.) 955 Oliver Road Thunder Bay, ON P7B 5E1	Ms. Johane Joncas 346-7793	- water (toxicology)

LABORATORY	CONTACT	REGISTERED MATRICES
ARECO CANADA INC. 40 Camelot Drive Nepean, ON K2G 5X8	Mr. Greg Clarkin (613) 228-1145	- soil/sediment - oil - water (inorganic) - water (microbiology) - water (organic)
B.A.R. Environmental Inc. Nicholas Beaver Park R.R. #3 Guelph, ON N1H 6H9	Mr. Keith Holtze (519) 763-4410	- water (toxicology)
BARRINGER LABORATORIES LTD. 5735 McAdam Road Mississauga, ON L4Z 1N9	Dr. Michael Dancziger (905) 890-8566	- air filter - oil - soil/sediment - water (inorganic) - water (organic)
BEAK CONSULTANTS LTD ECOTOXICITY LABORATORY 14 Abacus Road Brampton, ON L6T 5B7	Ms. July Shroeder (905) 794-2325	- water (toxicology)
CAM TRAN CO. LTD. P.O. Box 866 Purdy Road Colborne, ON K0K 1S0	Mr. George Quigley (905) 355-3224	- oil
CANVIRO ANALYTICAL LABORATORIES LTD. 50 Bathurst Dr., Unit #12 Waterloo, ON N2V 2C5	Mr. Jeffrey Pike (519) 747-2575	- air filter - oil - soil/sediment - water (inorganic) - water (microbiology) - water (organic)
CENTRAL ONTARIO ANALYTICAL LABORATORY 575 West St. S. Willow Court Plaza Unit 9 Orillia, ON L3V 7N6	Mr. Russell Johnston (705) 326-8285	- water (microbiology) - water (inorganic)
CRA ANALYTICAL SERVICES DIVISION 651 Colby Drive Waterloo, ON N2V 1C2	Mr. Wayne Smith (519) 884-0510	- water (inorganic) - water (toxicology)

LABORATORY	CONTACT	REGISTERED MATRICES
DISTRICT OF MUSKOKA 70 Pine Street Bracebridge, ON P1L 1N3	Mr. Donald Currie (705) 645-3020	- water (microbiology)
DRAIN-ALL LABS 2705 Stevenage Drive Gloucester, ON K1G 3N2	Mr. Eric Yokale (613) 739-1070 x213	- oil
ECO-ANALYTICAL LABS INC. 3201 Marentette Ave., Unit #5 Windsor, ON N8X 4G3	Dr. Kaz Seyda (519) 966-9541	- air filter - water (inorganic)
ECO-NORTH LABORATORY AND ADVISORY SERVICE RR. #1 McCauley Road Rosseau, ON P0C 1J0	Mr. John Warner (705) 732-1805	- water (microbiology)
ENTECH A Division of Agri-Service Labs Inc. 6820 Kitimat Road, Unit 4 Mississauga, ON L5N 5M3	Mr. Sam Sanyal (905) 821-1112	- oil - water (inorganic, micro) - water (organic) - soil/sediments
ENVIRO-TEST LABORATORIES THUNDER BAY ANALYTICAL 1081 Barton St. Thunder Bay, ON P7B 5N3	Mr. Richard Clara (807) 623-6463	- water (inorganic) - water (microbiology)
ENVIRONMENTAL TECHNOLOGY RESEARCH LABS 2 - 3064 Princess Street Kingston, ON K7L 4V2	Mr. Steve Garrett (613) 544-2001	- water (microbiology) - water (organic)
ENVIRONMENT CANADA Analysis & Methods Division 3439 River Road South Gloucester, ON K1A 0H3	Mr. Richard Turle (613) 990-8559	- air cartridge - air filter - oil - water (inorganic) - water (organic)
ENVIRONMENT CANADA National Laboratory for Environmental Testing P.O. Box 5050, N.W.R.I. Burlington, ON L7R 4A6	Mr. Robin Sampson (905) 336-4563	- soil/sediment - water (inorganic) - water (organic)

LABORATORY	CONTACT	REGISTERED MATRICES
FINE ANALYSIS LABORATORIES LTD. 236 Pritchard Road Hamilton, ON L8W 3P7	Dr. K. Abdullah (905) 574-4977	- oil - water (inorganic)
FISHER ENVIRONMENTAL 400 Esna Park Drive, Unit #15 Markham, ON L3R 3K2	Ms. Laura Berzelatto (905) 475-7755	- oil - water (inorganic) - water (organic) - soil/sediment
GAP ENVIROMICROBIAL SERVICES INC. 1020 Hargrieve Rd. London, ON N6E 1P5	Mr. Garry Palmateer (519) 681-0571	- water (microbiology)
GELDA SCIENTIFIC 6320 Northwest Drive Mississauga, ON L4V 1J7	Mr. Arvind Gelda (905) 673-9320	- water (microbiology)
GEOSCIENCE LABORATORIES 933 Ramsey Lake Road Sudbury, ON P3E 6B5	Mr. John Morrison (705) 670-5645	- soil/sediment - water (inorganic)
GREAT LAKES INSTITUTE FOR ENVIRONMENTAL RESEARCH University of Windsor 401 Sunset Avenue Windsor, ON N9B 3P4	Dr. G.D. Haffner (519) 253-4232	- biological tissues - oil - soil/sediment - water (inorganic) - water (organic)
GREENWAY PCC LABORATORY P.O. Box 5035, 300 Dufferin Ave. London, ON N6A 4M3	Mr. Jim Burnard (519) 471-7087	- water (inorganic) - water (microbiology)
HALTON REGIONAL LABORATORY 1151 Bronte Road Oakville, ON L6M 3L1	Ms. Cassandra LoFranco (905) 825-6000 ext. 7719	- water (microbiology)
HAMILTON - WENTWORTH REGIONAL LABORATORIES 700 Woodward Avenue Hamilton, ON L8H 6P4	Ms. Pam Vircik (905) 546-4484	- oil - water (inorganic) - water (microbiology)

LABORATORY	CONTACT	REGISTERED MATRICES
HEALTH CANADA Occupational Health Unit, Medical Services Bldg. 17, Tunney's Pasture Ottawa, ON K1A 0L3	Dr. Harold Schwartz (613) 957-8549	- oil
ICI CANADA SHERIDAN PARK RESEARCH CENTRE 2101 Hadwen Road Mississauga, ON L5K 2L3	Ms. Judy Yanchis (905) 403-2710	- water (inorganic) - water (organic)
INTEGRATED EXPLORATIONS Box 1385 Station Main Guelph, ON N1H 6N8	Mr. Martin O'Reilly (519) 822-2608	- water (microbiology)
LAIDLAW ENVIRONMENTAL LAMBTON LABORATORY R.R. #1, (Telfer Side Road) Corunna, ON N0N 1G0	Mr. Greg Stachnyk (519) 864-1021	- air filter - oil - water (inorganic) - water (organic)
LAKEFIELD RESEARCH LIMITED P.O. Box BAG 4300, 185 Concession Street Lakefield, ON K0L 2H0	Dr. Jean Richardson (705) 652-2038	- ores/rocks - oil - soil/sediment - water (inorganic) - water (organic) - water (toxicology)
LAMBTON SCIENTIFIC Division of Technical Chemical Services P.O. Box 2020 391 Vidal Street, North Sarnia, ON N7T 2V3	Mr. A. Schmidtmeyer (519) 344-3628	- oil - water (inorganic)
MDS LABORATORIES (LONDON) 181 Commissioners Rd. W. London, ON N6J 1X9	Mr. Joe Korpan (519) 672-4500	- water (microbiology)
METRO TORONTO WORKS DEPT., CENTRAL LAB 545 Commissioners St. Toronto, ON M4M 1A5	Mr. John Rudnickas (416) 392-2923	- water (microbiology)
NEAR NORTH LABORATORIES INC. 11 - 191 Booth Road, R.R. #5 North Bay, ON P1A 4K3	Ms. Brenda McLay- Priolo (705) 497-0550	- water (microbiology)

LABORATORY	CONTACT	REGISTERED MATRICES
NIAGARA ANALYTICAL LABORATORIES INC. P.O. Box 205, Station Main Niagara Falls, ON L2E 6T3	Ms. Stephanie Johnson (905) 374-5227	<ul style="list-style-type: none"> - oil - water (inorganic) - water (microbiology)
NIAGARA MICROTECH LABORATORY 4218 Drummond Rd. Niagara Falls, ON L05 1J0	Mr. Jim Roth (905) 356-1010	<ul style="list-style-type: none"> - water (microbiology)
NOVAMANN (ONTARIO) INC. 5540 McAdam Road Mississauga, ON L4Z 1P1	Mrs. Anne Dollman-Fisher (905) 890-2555	<ul style="list-style-type: none"> - air sampling solution - air filter - comp. gas - oil - paint - plant & animal (AG) - soil/sediment - water (inorganic) - water (microbiology) - water (organic)
ONTARIO HYDRO, ANALYTICAL SERVICES DIVISION 800 Kipling Avenue, Bldg. KJ 135 Toronto, ON M8Z 5S4	Dr. Adam Habayeb (416) 207-6577	<ul style="list-style-type: none"> - air filter - oil - soil/sediment - water (inorganic) - water (organic) - water (radiochemistry)
ONTARIO HYDRO, DARLINGTON STATION P.O. Box 4000 Bowmanville, ON L1C 3Z8	Mr. Terry Doran (905) 623-6670	<ul style="list-style-type: none"> - air emission filter/RC - water (inorganic) - water (radiochemistry)

LABORATORY	CONTACT	REGISTERED MATRICES
ONTARIO MINISTRY OF ENVIRONMENT Laboratory Services Branch 125 Resources Road Etobicoke, ON M9P 3V6	Ms. Sylvia Cussion (416) 235-5848	<ul style="list-style-type: none"> - air/precip cartridge - air filter - oil - soil/sediment - tissue (fish) - vegetation - water (inorganic) - water (microbiology) - water (organic)
ORTECH CORPORATION (SARNIA) 1133-C Vanier Road Sarnia, ON N7S 3Y6	Mr. Rod Brooks (519) 336-3327	<ul style="list-style-type: none"> - water (organic)
ORTECH CORPORATION 2395 Speakman Drive Mississauga, ON L5K 1B3	Ms. Shelley Johnson (905) 822-4111	<ul style="list-style-type: none"> - air filter - oil - water (inorganic) - water (organic)
PARACEL LABORATORIES LTD. 2319 St. Laurent Blvd., Unit 100 Ottawa, ON K1G 4K6	Mr. Dale Robertson (613) 731-9577	<ul style="list-style-type: none"> - oil - water (inorganic) - water (organic)
PHILIP ANALYTICAL SERVICES CORPORATION, (BURLINGTON) 5555 North Service Rd. Burlington, ON L7L 5H7	Mr. Gerry Bengert (905) 332-8788 x248	<ul style="list-style-type: none"> - air filter - oil - soil/sediment - water (inorganic) - water (organic)
PHILIP ANALYTICAL SERVICES CORPORATION, (LONDON) 921 Leathorne Street London, ON N5Z 3M7	Ms. Lorraine Dasilva (519) 686-7558	<ul style="list-style-type: none"> - oil - soil/sediment - water (inorganic) - water (organic)
PHILIP ANALYTICAL SERVICES CORPORATION 6850 Goreway Drive Mississauga, ON L4V 1P1	Ms. Maureen Marentette (905) 673-3255	<ul style="list-style-type: none"> - air filter - water (inorganic) - water (organic)
PLACER DOME CANADA LTD., DOME MINE Analytical and Environmental Services P.O. Box 70 South Porcupine, ON P0N 1H0	Mr. Ron Connell (705) 235-6524	<ul style="list-style-type: none"> - water (inorganic)

LABORATORY	CONTACT	REGISTERED MATRICES
POLLUTECH ENVIROQUATICS LIMITED Suite 122, 704 Mara Street Pointe Edward, ON N7V 1X4	Mr. Dan Adams (519) 339-8787	- water (toxicology)
QUALITY CHEMICAL ANALYSIS (Q.C.A.) LABS INC. 150 Albert St. Midland, ON L4R 4K8	Mr. Ray Hurrell (705) 733-3500	- oil - water (inorganic)
QUEEN'S UNIVERSITY Chemistry Division Queen's Analytical Services Unit Kingston, ON K7L 3N6	Dr. John S. Poland (613) 545-2642	- air filter - oil - water (inorganic)
R & R LABORATORIES LTD. 1557 Fair Ave. Peterborough, ON K9K 1T1	Dr. Ramesh Makhija (705) 748-1506	- water (inorganic)
REGIONAL MUNICIPALITY OF NIAGARA P.O. Box 1042 Thorold, ON L2V 4T7	Ms. Norma Linkiewicz (905) 685-1571	- water (inorganic)
REGIONAL MUNICIPALITY OF PEEL 3515 Wolfedale Road Mississauga, ON L5C 1V8	Ms. Janet Dickson (905) 791-7800	- water (inorganic) - water (organic)
REGIONAL MUNICIPALITY OF WATERLOO, ENVIRONMENTAL ENFORCEMENT SECTION 100 Maple Grove Road Cambridge, ON N3H 4R6	Mr. Paul Coutts (519) 650-8266	- water (inorganic) - water (microbiology)
ROBERT O. PICKARD ENVIRONMENTAL CENTRE 800 Green Creek Drive Gloucester, ON K1J 1A6	Mr. Ken Middlebrook (613) 560-6086	- water (inorganic) - water (microbiology)
SEPROTECH LABORATORIES 2378 Holly Lane Ottawa, ON K1V 7P1	Mr Michael Ziebell (613) 523-1641	- air filter - oil - water (inorganic) - water (Microbiology) - soil/sediment
SGS PHARMACEUTICAL LABORATORIES 310 Brunel Road Mississauga, ON L4Z 2C2	Mr. Anthony Rajki (905) 890-4880	- water (microbiology)

LABORATORY	CONTACT	REGISTERED MATRICES
ST. LAWRENCE RIVER INSTITUTE OF ENVIRONMENTAL SCIENCES 1111 Montreal Road, Suite 144 Cornwall, ON K6H 1E1	Ms. Tracey Beauregard (613) 936-6620	- water (microbiology)
TARA SCIENTIFIC LABORATORIES Suite 110, Medical Arts Building 73 N. Cumberland St. Thunder Bay, ON P7A 4L8	Dr. Brian Spare (807) 345-4011	- water (inorganic) - water (organic) - water (microbiology)
UNIVERSITY OF GUELPH, LABORATORY SERVICES DIVISION P.O. Box 3650 95 Stone Rd. West, Zone 2 Guelph, ON N1H 8J7	Ms. Nadine Armstrong (519) 767-6201	- soil/sediment - water (inorganic) - water (organic)
WALKER LABORATORIES P.O. Box 100, 2800 Townline Road Thorold, ON L2V 3Y8	Mr. Brian Fell (905) 227-1158	- air filter - oil - paint - swabs - soil/sediment - water (inorganic) - water (organic)
WATER TECHNOLOGY INTERNATIONAL CORPORATION 867 Lakeshore Road. P.O. Box 5068 Burlington, ON L7R 4L7	Mr. Peter Fowlie (905) 336-4633	- oil - soil/sediment - water (inorganic) - water (organic) - water (microbiology) - water (toxicology)
WATER POLLUTION CONTROL LABS, MAIN TREATMENT LAB 300 Dee Ave. Weston, ON M9N 1S9	Mr. M.S. Sun (416) 392-3590	- water (inorganic)
WELLINGTON LABORATORIES INC. 398 Laird Road Guelph, ON N1G 3X7	Mr. Brock Chittim (519) 822-2436	- oil - water (organic)
YORK-DURHAM REGIONAL ENVIRONMENTAL LAB 901 McKay Road Pickering, ON L1W 3A3	Ms. Carolyn Eaton (905) 686-0041	- water (inorganic) - water (organic) - water (microbiology)

APPENDIX B - SAMPLE CONTRACT CONTENT

1.0 NAMES THE PARTIES TO THE CONTRACT

Contracting organization and its designated representative;

Contractor, the laboratory selected to do the work;

Requisition number;

Project title.

2.0 ASSIGNMENT

Assigns the contract work to the contracting laboratory.

3.0 APPOINTMENT

Appoints the contractor to perform the work as assigned.

4.0 COSTS

Outlines the costs for the duration of the contract and the yearly costs if there is an option to renew.

5.0 PAYMENTS

5.1 INVOICES

Invoicing frequency

Hold-back provision: an amount, usually in the order of 10% of each invoice, may be held back until satisfactory completion of the work;

Documentation required: list of completed submissions, sample numbers and tests analyzed;

Contracting agency administrative records will be deemed correct in the case of disputes;

Requirement for contractor to maintain financial records and books of account which may be inspected by the contracting agency;

Credits in case of overpayment.

5.2 SAMPLE RESPONSIBILITY

Lists the respective responsibilities of the contracting agency and the contracted laboratory with respect to samples.

5.3 PENALTIES

Penalties may be levied when the contractor does not meet the specified turn-around-time;

Penalties may be waived in extraordinary circumstances, as negotiated;

5.4 REPEAT ANALYSES

Payment responsibilities are outlined when:

- QC results are outside the prescribed limits;
- repeat analyses confirm the original data;
- results are deemed unacceptable by the contracting agency;
- additional analyses requested by the contracting agency.

5.5 INTER-COMPARISON SAMPLES

Describes the use of inter-comparison studies in the contracting process.

6.0 DATES

Start and end dates for the contract.

7.0 PROGRESS AND FINAL REPORT

Oral or written progress reports may be requested by the contracting agency.

8.0 PERSONNEL AND FACILITIES

Contractor identifies key contact(s) who will act as primary liaison with the contracting agency;

Contractor may visit contracting agency for consultation;

Principal professional staff will not be changed during the course of the contract without written consent of the contracting agency.

9.0 LIABILITY

Spells out the contracting agency's and the contractor's responsibilities and cases where indemnities may be requested.

10.0 PREMATURE TERMINATION

Specifies cases where the contracting agency may terminate the contract prior to its normal expiry.

11.0 DOCUMENTS AND MATERIALS

Outlines reports, data storage and sample disposal requirements.

12.0 SECURITY, CONFIDENTIALITY AND INDUSTRIAL PROPERTY

Lists confidentiality, patent rights and conditions for publishing the data obtained on behalf of the contracting agency.

13.0 ENTIRE AGREEMENT

Lists all the documents, tables, appendices which form part of the contractual agreement.

14.0 WAIVER

The contracting agency need not specify on each occasion the terms of the agreement: the contractor is expected to follow all the contractual terms in performing all work under the contract.

15.0 SUPPORT SERVICES

Office support services are the responsibility of the contractor, e.g. typing, photocopying etc.

16.0 CONDITIONS

Referral to a third party in case of disagreement;

Legal action not excluded.

Signatures

APPENDIX C - SAMPLE LETTER OF INVITATION

(Date)

(Vendor Name & Address)

RE: LETTER OF INVITATION - (PROGRAM NAME/TYPE OF ANALYSIS)

This is to notify your company that you have been selected as a potential bidder for the external contracting of the aforementioned analysis.

The enclosed Request for Proposal contains all pertinent details and a bidders' meeting is set for xx/xx/xx. Your presence at this meeting is mandatory if you wish to bid on this contract and any questions you may have about the contract will be answered at that time. Bids are to be delivered to:

Contracting Agency
Address

prior to xx.xx (time) on xx/xx/xx (date). Late entries will be disqualified.

In addition, if your company has not already done so, please submit an up-to-date brochure outlining your laboratory's capabilities for environmental sample analysis to:

(Contract administrator)
(Contracting Agency)
(Address)

Yours truly

(Name)
Purchasing Officer

Attachment

cc: (Admin. Manager)
(Technical Liaison Officer(s))
(Contract Administrator)

APPENDIX D - SAMPLE REQUEST FOR PROPOSAL

REQUEST FOR PROPOSAL (RFP) FOR (Program Name/Type of Analysis/Matrix??)

**ONTARIO MINISTRY OF ENVIRONMENT
LABORATORY SERVICES BRANCH
CUSTOMER SERVICE SECTION
125 RESOURCES ROAD
ETOBICOKE ON
M9P 3V6**

(Date M/D/Yr)

TABLE OF CONTENTS

1. INTRODUCTION
2. OBJECTIVES
3. DESCRIPTION OF RESOURCES REQUIRED
4. SELECTION OF A SUCCESSFUL PROPOSAL
5. PROPOSAL FORMAT
6. FORM OF TENDER
7. PROGRAM DESCRIPTION & SPECIFICATIONS

APPENDIX #:

Target Compounds and Method Detection Limits

APPENDIX #:

Estimated Workloads

Note: Ensure workload includes QA/QC sample load e.g. samples spiked by LSB and inserted blindly into routine workload/travel blanks/field blanks.

APPENDIX #:

Proposed Letter of Agreement

APPENDIX #:

Ministry of Environment (MOE) Methodologies

APPENDIX #:

Data Reporting and Interpretation Practices

APPENDIX #:

Estimation of MDL

NOTE: The appendices are identified for guidance on the contents of an actual RFP and are not included in this Guide.

1.0 INTRODUCTION

The Laboratory Services Branch (LSB) of the Ministry of Environment is a large, state-of-the-art analytical facility. LSB is essentially a service group to the Ministry. Our clients are the other Ministry branches and regional offices. Within the framework of Ministry programs and studies, these groups generate the samples which LSB analyzes. LSB staff complete over a million tests per annum ranging from pH to priority pollutants on all environmental matrices.

In order to meet ever increasing demands for environmental analytical services, the LSB has an external contract program in-place. Routine workloads as well as new Ministry programs or portions thereof, where suitable, are considered candidates for external contracts.

In order to ensure consistent data compatible with existing Ministry databases, the Laboratory Services Branch administers all contracted analytical work for the Ministry. Administration is handled by a contract administrator based at LSB and a Crown technical liaison officer is appointed for each project.

All analytical data generated by the Crown is handled by the Laboratory Information Management System (LIMS). Using a series of user friendly programs such as submission entry, workstation control and run processing, submissions are entered, runs are formed and results are reported and approved by the laboratory staff.

The Contract laboratory will be required to use the LIMS. Training is provided by LSB staff. At a minimum, data is reported via personal computer and modem, using the LIMS programs and protocols.

2.0 OBJECTIVES

To provide the Crown with analytical data equivalent in quality, format and time frame to that provided by LSB at no inconvenience to the data user.

To generate and record all quality control and quality assurance data associated with any contracted work.

By means of the external contract program to free manpower within LSB for allocation to emerging Ministry priorities.

To provide these services at a minimum cost to the Crown without jeopardizing data quality or throughput.

3.0 DESCRIPTION OF RESOURCES REQUIRED

The Contract laboratories must demonstrate in a written form the following:

- 3.1 Experience in the analytical procedures required both at the supervisory and technical level.
- 3.2 Instrumentation appropriate to the procedures and the precision and sensitivity requirements for each parameter.
- 3.3 General experience in environmental analytical chemistry.
- 3.4 Suitable qualifications for all levels of the analytical team, generally post graduate degrees for senior staff and a minimum of a community college diploma for junior technicians or an appropriate combination of academic qualifications and working experience.
- 3.5 Ability to carry out all elements of the program on an ongoing basis.
- 3.6 Experience with IBM.PC compatible-micro computers, operating systems (ie. DOS) and standard application packages (ie. LOTUS, dBase IV, etc...) and data formation (ie. delimited ASCII strings).
- 3.7 Experience in documenting analytical methods including relevant quality assurance.

In addition, the following qualification is desirable:

- 3.7.1 Experience in dealing with Crown programs.

4.0 SELECTION OF A SUCCESSFUL PROPOSAL

4.1 STAGE 1

The proposals submitted will be evaluated, scored and rated according to the following criteria not necessarily listed in order of importance.

Evaluation Criteria:

1. Mandatory attendance at Bidder's Meeting.
2. Accreditation/Certification.
3. Acceptance of all terms of the contractual agreement.
4. Proven experience and/or expertise with IBM.PC compatible-microcomputers, operating systems and standard application packages.
5. Proven experience and/or expertise in the procedures required with references.
6. Will adhere to Crown approved or equivalent methodologies, run formats, and test procedures.
7. Adequacy of proposal.
8. Skills/knowledge of key personnel assigned to this project, including training in WHMIS (Workplace Hazardous Material Information System).
9. Ability to commence program with no start-up time.
10. Cooperation and assistance in on-site visits to be held as deemed necessary.
11. Performance on laboratory evaluation samples.
12. Availability of operational back-up instrumentation.
13. Adequacy of methodologies.
14. Availability of up-to-date methodologies upon request.
15. Adequacy of instrumentation.
16. Adequacy of internal QA/QC protocols and records.

17. Ability to meet detection limits specified in this RFP.
18. Demonstrated experience in the test and matrix analyzed.
19. Ability to carry out all program elements.
20. Innovation and additional effort.
21. Will analyze inter-comparison samples as requested.
22. Price (\$).

Strong preference will be given to those bidders who can handle all aspects of the program. Note that the lowest bid is not the only criterion of acceptance.

4.2 STAGE 2

The potential vendor(s) may be requested to analyze inter-comparison samples as the final stage of the evaluation process. Performance satisfactory to the Crown technical liaison officer and the Crown Quality Assurance Officer must be demonstrated in order to be awarded the contract. The successful inter-comparison is defined as that which complies with the time frame, protocols and specifications established by the Crown. The Crown will pay half the cost for successfully completed inter-comparison work ie. 50% of the test cost indicated in the vendor's proposal for this assignment.

At this stage, the selected vendor(s) can expect a site visit by Ministry of the Environment personnel to assess the instrumentation and methodology employed.

5.0 PROPOSAL FORMAT

Proposals shall be as brief but as informative as possible and shall include the following:

5.1 A brief statement of understanding of the assignment.

5.2 A schedule of activities for undertaking the assignment, which will include a description of sample flow through the analytical system, with time and manpower requirements for each activity.

-
- 5.3 A statement demonstrating ability to meet detection limits specified in Table #, including details of detection limit calculations. (A description of how to calculate detection limits is provided in Appendix #).
- 5.4 Detailed descriptions of the instrumentation and analytical methods to be used, including a detailed QA/QC plan, sample container clean-up and proofing, sample preparation procedures and instrumental methods. Document deviations from the Crown method, if any.
- 5.5 A list of the parameters and matrices the Contractor is currently analyzing, their routine precision, method detection limits, and the definitions and methods of calculations of these values.
- 5.6 Provide performance data for the type of analyses being tendered from any of the following studies in which your laboratory participated during the last year, using the method and QA/QC described in 5.2, 5.3 and 5.4 noted above.
- i) National Institute of Science & Technology (NIST) i.e. NBS Standards or other certified standards.
 - ii) Round-robins conducted by commercial/private organizations.
 - iii) Inter-laboratory studies conducted by the Ontario Ministry of Environment and other government jurisdictions.

Information must be presented in an Appendix to your proposal and must include a description of the nature of the samples, and the inter-laboratory mean/ median/ expected values utilized.

- 5.7 An indication of the Contractor's capacity with respect to the number of samples it is capable of receiving within a specified period of time.
- 5.8 The names of staff to be assigned to the project, their experience and credentials in similar projects. Include proof of staff training in WHMIS. Designate a single representative to deal with the Crown in regard to this project. Any staff changes must be approved by the Crown Scientific Liaison Officers prior to implementation.
- 5.9 A statement indicating willingness to sign a Legal Agreement which is substantially similar to the attached sample Legal Agreement (Appendix #). If the contractor is not prepared to accept all items as offered, indicate any revisions with explanations, that would make the agreement admissible. We reserve the right to refuse revisions deemed unacceptable and reject bidders who insist on these revisions, after thorough discussion.
-

- 5.10 Client references for work of a similar nature.
- 5.11 Cost of assignment. Include breakdown of the costs for each of the items identified in Section 6.0 FORM OF TENDER. Indicate cost increases, if any, and total revised program costs for assignment undertaken during the second and third years should the program be extended.
- 5.12 Any improvements to the program. Outline options and associated costs separately.
- 5.13 A statement demonstrating the level of experience in micro computer usage, operating system proficiency and working knowledge of industry standard application software packages.
- 5.14 Indicate contingency plans to deal with staff or equipment loss to minimize client loss of sample/media/results/time.
- 5.15 Any other matters which the contractor deems relevant.

Five (5) copies of the proposal shall be submitted to:

Ministry of Environment
Administrative Services Branch
Purchasing Services
40 St. Clair Avenue West
Toronto, Ontario
M4V 1M2

Phone: (416) 323-4261
Attention: (Purchasing Officers Name)

Late submissions will not be accepted and will be returned unopened. Faxed proposals will not be accepted.

The Ministry reserves the right to accept or reject any or all proposals submitted in response to this request for proposal.

The Ministry will not bear any cost involved in the preparation or submission of proposals received as a result of this request.

The Ministry reserves the right to cancel this request for proposal at any time.

6.0 FORM OF TENDER

The prices shown will represent the total payments for this project. No other costs will be acceptable for payments.

Note: The Laboratory may insert additional spaces as required.

6.1 YEAR 1

ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
A. SAMPLING CONTAINERS				
(a) Supply (type of sample container??) for (type of analysis??) sample collection.	each	(#)		
(b) Ship above sampling containers to this site: (address??)				
B. SAMPLE PICK-UP & TRANSPORTATION				
(a) Pick-up samples at: (Ontario Ministry of Environment, Laboratory Services Branch 125 Resources Road Etobicoke, ON)	each	(#) trips (#trips)/week		
C. SAMPLE ANALYSIS				
(type of analysis??) - (# ?? calendar days turnaround time)	each	(#??)		
(type of analysis??) - (# ?? calendar days turnaround)	each	(#??)		
TOTAL PROGRAM COST:				

6.2 YEAR 2

ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
A. SAMPLING CONTAINERS				
(a) Supply (type of sample container??) for (type of analysis??) sample collection.	each	(#)		
(b) Ship above sampling containers to this site: (address??)				
B. SAMPLE PICK-UP & TRANSPORTATION				
(a) Pick-up samples at: (Ontario Ministry of Environment, Laboratory Services Branch 125 Resources Road Etobicoke, ON)	each	(#) trips (#trips)/week		
C. SAMPLE ANALYSIS				
(type of analysis??) - (# ?? calendar days turnaround time)	each	(#??)		
(type of analysis??) - (# ?? calendar days turnaround)	each	(#??)		
TOTAL PROGRAM COST:				

6.3 YEAR 3

ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
A. SAMPLING CONTAINERS				
(a) Supply (type of sample container??) for (type of analysis??) sample collection.	each	(#)		
(b) Ship above sampling containers to this site: (address??)				
B. SAMPLE PICK-UP & TRANSPORTATION				
(a) Pick-up samples at: (Ontario Ministry of Environment, Laboratory Services Branch 125 Resources Road Etobicoke, ON)	each	(#) trips (#trips)/week		
C. SAMPLE ANALYSIS				
(type of analysis??) - (# ?? calendar days turnaround time)	each	(#??)		
(type of analysis??) - (# ?? calendar days turnaround)	each	(#??)		
TOTAL PROGRAM COST:				

7.0 PROGRAM DESCRIPTION & SPECIFICATIONS

7.1 (BACKGROUND INFORMATION ON PROGRAM BEING TENDERED & PURPOSE??)

The work to be contracted out is the analysis of (matrix??) samples for (type of analysis??)

Project meetings will take place during the course of the project. The first meeting will occur very shortly at 125 Resources Road, Etobicoke after the contract for the laboratory services has been awarded.

7.2 SPECIFICATIONS RELATING TO TENDER ITEMS IN SECTION 6.0

Under the general guidance of the Crown liaison officer(s), the Contract laboratory will carry out the tasks and adhere to the conditions outlined below.

A. Sampling Containers

- A.1 Supply and ship (properly prepared, cleaned and proofed??) sampling containers prior to each sample collection to the sampling site. ie. (??).
- A.2 The assumption is that containers will be reused. The number of sampling containers required is up to your discretion to cover proofing, sampling and analysis.
- A.3 Supply (one field blank and one travel blank??) with each batch of sampling containers shipped.
- A.4 Ship all sampling bottles or cartridges in suitable containers ie. (coolers, with ice packs??)
- A.5 It should be noted that equipment purchased as part of this study will become property of the Crown upon completion.

B. Sample Pick-Up and Transportation

- B.1 Pickup samples at (the Laboratory Services Branch location??). The sampling, coding of the samples and submission entry are the responsibility of the Crown.
- B.2 Pickup and transport all samples in suitable containers (at freezer temperatures??) and transported to the contractor's laboratory within (6 hours??).
- B.3 Samples must be stored at the contractor's laboratory at (freezer temperatures??).

C. SAMPLE ANALYSIS

C.1 Target Compounds, Workloads and Timing

- (a) Estimated workloads are described in Tables (#), Appendix #. The Crown may delete, extend, increase, vary or otherwise change 'the workload', depending on the needs of the Crown programs.
- (b) Prepare and analyze samples for all tests listed in Tables (#), Appendix#.
- (c) Include in the unit cost the following:
 - sample preparation and analysis
 - internal quality control work as per details in Appendix #, MOE Methodologies, (including surrogate analysis which consists of the following mixture: ??)
 - all work (see section C.3) associated with reporting of analytical data including quality control data (LIMS diskette, and hard copy).
 - checking the integrity of the samples.
 - meeting attendance

Note that because of the nature of the samples, a number of clean-up procedures and analytical runs may be required to obtain the detection limit values specified in Table (#), Appendix #. This condition must be factored into the cost (??).

- (d) Supply of standards are the responsibility of the Contractor.
- (e) No lead time will be allowed for 'start-up' of the undertaking.

- (f) It should be noted that the length of the contract is based on our estimate of the probable duration of the program. The actual contract may be extended or curtailed due to shifting Ministry priorities.
- (g) To provide the most cost effective combination, the Crown reserves the right to split the award of the analyses tendered among one or more vendors. Indicate any increase in price for the individual analyses should separate contracts be awarded.
- (h) All components on which you are being asked to bid may not be contracted out. These will be selected at the discretion of the Crown.
- (i) Provide costs for meeting the turnaround times tabled below for sample analysis should these be requested.

ANALYSIS	TURNAROUND TIME CALENDAR DAYS	CHARGE		
		YEAR 1	YEAR 2	YEAR 3
(type of analysis??)	(#??)			
(type of analysis??)	(#??)			
(type of analysis??)	(#??)			

- (j) Meet the turnaround time specified by the Crown liaison officer for (type of analysis??) sample analysis. The turnaround time for (type of analysis??) is based on submission of batches of (#?? or less) samples. (Analysis must commence within (#??) days of receipt of samples by the Contractor). Turnaround time is calculated from the day notification is given for the submission to be picked up to the day the data for that submission is approved by the Contractor at submission approval level. Penalties will be levied for failure to meet deadlines as defined in Section 5 of the Contractual agreement i.e. (at a rate of 5% of the submission cost per week late or part thereof to a maximum of 20% of the submission cost?? or at a rate of 20% of the submission cost per day late??) at the discretion of the Crown liaison officer and Crown contract administrator.
- (k) As the exact number of samples is difficult to predict, identify any reduction in price for increasing sample numbers and # of samples/batch and any increase in price for decreasing sample numbers and # of samples/batch. Specify these cost changes, if any, for all turnaround times identified in this Request for Proposal.

D. ANALYTICAL METHOD, AND QA/QC PROTOCOLS

- (a) Analyze samples using the current Crown method (Appendix #) or Crown approved equivalent method capable of meeting the required data quality. Adhere exactly to all Crown defined and any additional Crown approved QA/QC protocols. Meet the detection limits specified for each compound specified in Appendix #. No methodology changes may be made without prior discussion, documentation of changes and approval in writing by the Crown technical liaison officer.
- (b) Contact Crown technical liaison officer prior to analysis when samples or sample submissions appear anomalous.
- (c) Contact Crown technical liaison officer when problems are encountered not covered by the MOE provided protocols.
- (d) Carry out repeat analyses, if applicable, when indicated by quality control findings or good analytical practice. The Crown is not obligated to pay for this work.
- (e) Carry out repeat analyses when requested by the Crown liaison officer. Such requests could stem from unlikely values in terms of known environmental levels or from unacceptable QC or check sample results. In our own laboratories, such repeats normally occur on less than 10% of the data. Any such repeats would be remunerated at the normal per sample rate.
- (f) The Crown reserves the right to insist the Contractor make changes and/or improvements to its analytical procedures, instrument operation/maintenance routines so that satisfactory results will be generated.
- (g) The Crown also reserves the right to replace the laboratory with another laboratory(ies) should the performance of the laboratory be deemed unacceptable by the Crown and not be corrected promptly upon notification.
- (h) The Crown liaison officer may visit the Contractor's laboratories as required to inspect the Contractor's operating procedures for sample analyses, instrument maintenance, daily operation log books, etc., to determine the Contractor's performance.
- (i) The Crown may audit the Contractor by spiking (blind audit) a portion of the samples or by some other means defined by the Crown. Acceptable agreement between the Contractor results and the Crown results will be defined by the Crown.

The Crown laboratory reserves the right to inspect the QC data recorded by the contract laboratory upon request.

- (j) Provide instrument ready extracts of blanks, spikes (full component) and samples with surrogates added to the Laboratory Services Branch as requested by the Crown Liaison Officer for cross check and confirmation of identity and quantity.
- (k) The Contractor must be prepared to show when requested that positive detection of analytes is not the result of sample cross-contamination by producing results from the analysis of procedure blanks, glassware blanks, showing the order of sample analysis from instrument log books, and generally demonstrating that good laboratory practices are being followed. The Contractor must take special care in cleaning and reusing reacti-vials or similar vials used to hold the final sample extracts. The Contractor must be ready to show that previously unused vials were employed, or that recycled vials were first proven clean before use).

E. DATA REPORTING PROTOCOLS

- (a) Report all analytical data in the LIMS electronic format approved by the Crown utilizing Crown submission entry and reporting programs. The contract laboratory must have the following minimum equipment in order to perform the functions related to LIMS file transfer and interactive sessions: an IBM-PC AT or 100% compatible or clone with 640 Kbytes of RAM, one 360 Kbytes, five and a quarter inch floppy disc drive, one hard disk (20 Mbytes) drive, one serial RS232C communication port, a laser printer that is PCL5 compatible, PC Anywhere software and a telephone line of data grade, not connected at, or routed through a switch board or data switch. The contract laboratory must have at least one staff member with working knowledge of the above hardware and software. Crown will supply each contract laboratory with one high speed modem and cable and the communication program for both file transfer and interactive sessions. Additional MACROs for LOTUS 123 and BASIC programs will also be supplied for the importing and extracting of information to and from the micro-computer and printing of reports.

The contract laboratory is required to use the Crown file transfer utility to update the LIMS for all sample results. The use of the file transfer utility is mandatory.

All reported run related quality control data such as blanks, controls and duplicates are to be contained in the data stream along with the reported test results. All raw data including calibration and control standards and blanks and recorder tracings will be retained in-house for the duration of this contract and supplied to the Crown on request, in a format approved by the Crown (see (c) below). Ministry reporting protocols including W&T will be used (see Appendix #).

Training of two contract laboratory staff members on the LIMS and the file transfer utility will be carried out by staff of the Crown at 125 Resources Road.

- (b) Upon completion of the contract, the Contractor must return modem, cable and software to the Crown.
- (c) In addition, upon request by the Crown liaison officer, report all analytical data and quality control data on diskette and hard copy in a format specified by the Crown liaison officer.
- (d) The contract laboratory must report all exceedances of health-related parameters to Certificates of Approval limits or Drinking Water Objectives, as soon as the results are known, to the local Medical Officer of Health, the MOE District office and the contracting agency.

E.1 CONTRACTUAL AGREEMENT

- (a) The successful bidder will be required to sign a Legal Agreement which is substantially similar to the attached sample Legal Agreement Appendix #.
- (b) Length of contract will be one year, with an option to renew the contract for a second and third year. The Crown reserves the right to renew at the end of each contract year or cancel at any time by giving one month's notice.

APPENDIX E - CONSULTANT SELECTION PROCESS

TENDER ENV. (#)

CONSULTANT SELECTION PROCESS

The following is a summary of the consultant selection process for the aforementioned study.

The RFP was distributed to (#?) laboratories able to provide the type of analysis required and who were invited to attend the mandatory bidders meeting. The laboratories attending the bidders meeting submitted proposals which were evaluated by a selection committee of Laboratory Services Branch staff, including the contract administrator and technical liaison officer. Usually the technical liaison officer is a supervisor and the third person on the committee is a manager.

Each member evaluated the proposals and the summary scores are presented in Table 1 (attached). The Price Summary Sheet, all pre-selection check and inter-comparison sample results and proposal evaluation sheets are enclosed.

Although (competitor name) proposal was scored highest by the selection committee, the additional cost quoted by this vendor cannot be justified. (Successful vendor name) proposal scored second highest, they submitted the lowest bid and performed well on the inter-comparison. Based on these factors, the vendor of choice by the selection committee is (successful vendor name).

Deficiencies of the proposals submitted by the other competitors are outlined below:

- (Competitors Name) This private laboratory lacks experience in the proposed methodology for the type of sample to be submitted.
- (Competitors Name) Vendor's proposed methodology is unacceptable. (Give explanation)
- (Competitors Name) Proposal is too general and vague. Detailed descriptions of extraction, analyses and QA/QC protocols and information on sample load capacity/week are lacking.

PROPOSAL EVALUATION CRITERIA

PROJECT TITLE:

LABORATORY EVALUATED:

	PROPOSAL SECTION	EVALUATION CRITERIA
1.	Attendance at Bidder's Meeting.	Mandatory
2.	Acceptance of all Terms of Contract.	Mandatory
3.	Proof of Accreditation or Certification	Mandatory
LABORATORY CREDENTIALS		
4.	Proposal Submission	Completeness/Authorization
5.	Laboratory Organization	Decision making path; Established organisation; Sections with distinct responsibilities; Established quality assurance function.
6.	Relevant Experience	Company's knowledge base; Demonstrated performance; Relevance; Additional value.
7.	Staff Qualifications	Knowledge; Skills/training; Appropriate team size.
RESPONSE TO REQUIREMENTS		
8.	Workload Management	Workload management
9.	Deliverables	Compatibility to requirements/equivalence
10.	Quality Assurance Conditions	Proof of pre-requisites; Comprehensiveness of QA plan; Degree of application of QA plan; Demonstrated analytical performance.
11.	Performance Conditions	Comparability to requirements; Appropriate security; Appropriate facilities; Appropriate computerization.
12.	Sample Analysis and Handling	Comparability/equivalence; Equivalence of instrumentation requirements; Availability of operational back-up instrumentation; Method performance validation; Analytical control; Assessment of method performance by the laboratory.
13.	Quality Control	Comparability of routine operation to requirements; Responsiveness to requirements; Analytical control; Resolution/documentation.
14.	Data Reporting	Comparability to requirements
15.	Sample Reception and Tracking	Compatibility with requirements; Record keeping conditions.
16.	Analysis of Inter-Comparison Samples	Performance in inter-comparison sample analysis.

Evaluated by: _____ Date: _____

PROPOSAL EVALUATION FORM

PROJECT TITLE:

LABORATORY EVALUATED:

	TECHNICAL EVALUATION	WEIGHT (%)
1.	Attendance at Bidder's Meeting.	Mandatory
2.	Acceptance of all Terms of Contract.	Mandatory
3.	Proof of Accreditation or Certification	Mandatory
4.	Authorized Proposal Submission	Mandatory
5.	Laboratory Organisation	15
6.	Relevant Experience	15
7.	Staff Qualifications	15
8.	Workload Management	5
9.	Deliverables	5
10.	Quality Assurance Conditions	10
11 & 12	Performance, Analysis, Handling Conditions	15
13.	Quality Control	10
14.	Data Reporting	5
15.	Sample Reception and Tracking	5
16.	Other	-
	TOTAL	100
	SELECTION CRITERIA	WEIGHT (%)
	TECHNICAL PROPOSAL SECTIONS	60
	PRICE PROPOSAL	40
	TOTAL	100

Evaluated by: _____ Date: _____

SUMMARY OF SCORES & COSTS

PROJECT TITLE:

TABLE 1
PROPOSAL SCORES

EVALUATORS	LABORATORY NAME	LABORATORY NAME	LABORATORY NAME	LABORATORY NAME
TOTAL TECHNICAL SCORE				
RANKING	(1)	(2)	(3)	(4)
PRICES				
YEAR 1 COST				
YEAR 2 COST				
YEAR 3 COST				
TOTAL COST:				
OVERALL WEIGHTED RANKING				

APPENDIX F - SAMPLE CONTROL CHART OF HISTORIC DATA

CONTROL CHARTS

Control charts may provide a graphical way of comparing historical (MOE laboratory) data, for a single chemical parameter and sampling station, with the data received from the private laboratory. This chart will help to identify biases and/or imprecision in the current data with respect to the previous MOE data. There are three major attributes of a process that can be affected by error: 1) accuracy, 2) precision and 3) data distribution. Process control charts are designed to provide information on these types of errors.

A Shewart chart for ranges can be used to compare the new laboratory's data for a given parameter, for a sample taken from a specific location within the plant, with the MOE *process capability* (mean and standard deviation of the historical data received from MOE). A control chart is prepared for each chemical parameter (eg. phosphorus) at each sampling location (eg. distribution water - *plant name*). On the x-axis mark the sample date or observation number of the chemical measurement received from the new laboratory. On the y-axis record the observed concentration of the chemical parameter for that sample.

To set up the chart and compare the new values to the historical MOE data three sets of lines must be drawn on the chart (Figure 1). The centre line is the mean concentration of the parameter over a given time period (eg. 52 weeks), referred to as the historical process mean.

This mean is calculated as follows (example shown for total P):

$$\text{process mean} = \frac{\Sigma (P \text{ concentration (mg/L)})}{N}$$

Where: N = number of observations

- b) two *warning lines* are drawn above and below the historical process mean and are calculated as follows:

$$\text{warning value} = \pm 2 Sd$$

Where: Sd = standard deviation of the MOE total phosphorus data

- c) two *action lines* are drawn above and below the historical process mean and are calculated as follows:

$$action\ value = \pm 3 Sd$$

Where: Sd = standard deviation of the MOE total phosphorus data

It is recommended that at least 30 measurements be used, however, if there is large difference in the concentration of a parameter depending on the season, it may be more useful to divide the year into summer (26 weeks) and winter (26 weeks) and plot each separately. This may reduce the standard deviations (and hence the warning and action limits) more tightly controlling the process.

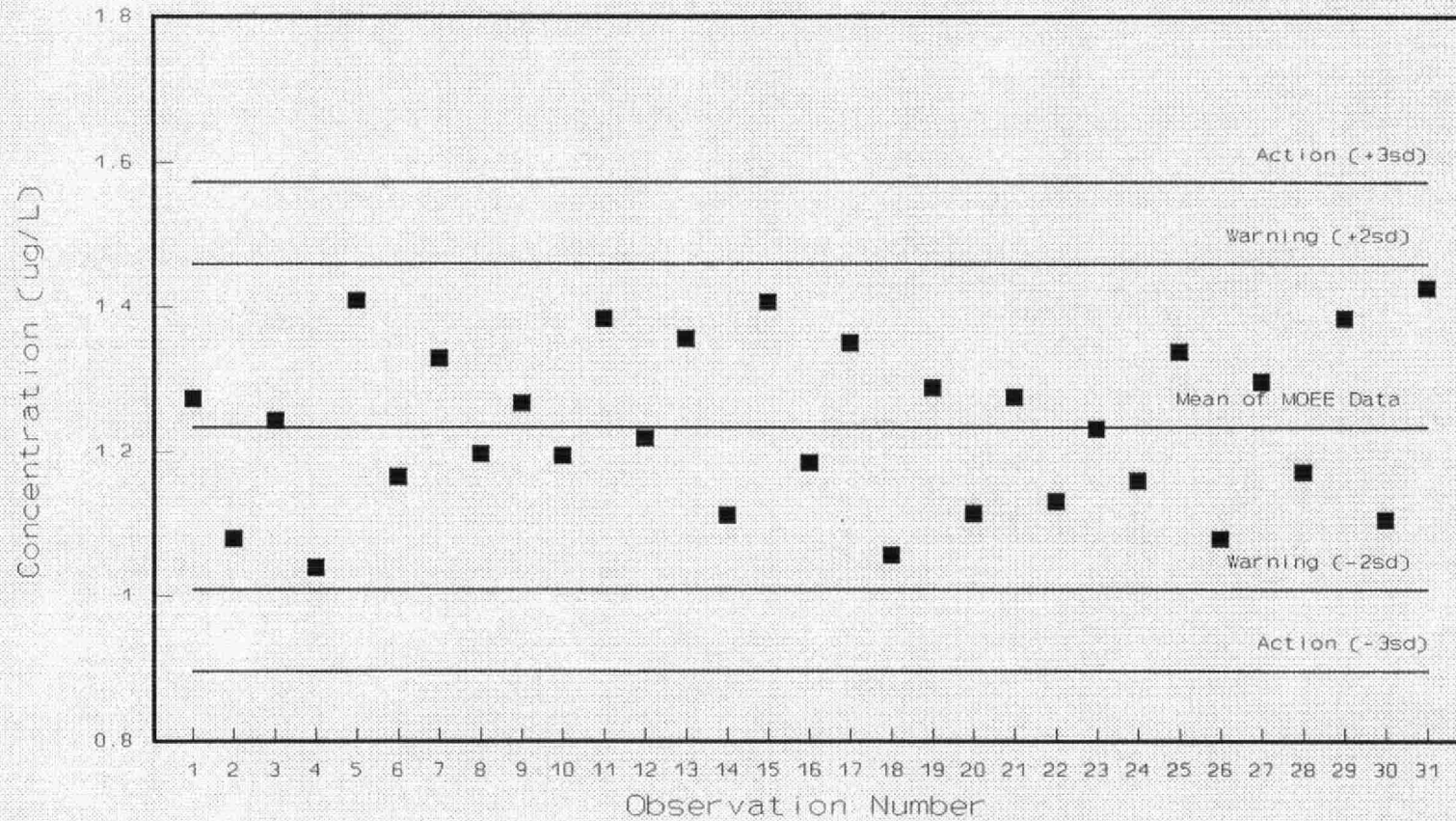
Using this chart, plot measurements for the parameter of interest (eg. total P) as received from the new laboratory (Figure 1). If the process is producing numbers that are normally distributed and statistically similar (mean and standard deviation) to the historic data, if there are no sources of determinate error (analytical or sampling-related) affecting the observations, and if there are no systematic changes to the quality of the water directly attributable to the treatment process, 95% should fall between the warning lines and 99.7% of them should fall between the action lines. If the new laboratory produces data which are often above the warning or control limits or consistently above or below the mean, consideration should be given to changes in the effectiveness of the treatment process and/or precision and/or accuracy differences with the new laboratory relative to MOE.

Once these types of charts have been used to examine data comparability between the MOE laboratory and the new laboratory similar charts can be set up using process means and standard deviations from the data received from the new laboratory to help quickly identify possible problems with treatment at the plant or possible analytical problems at the laboratory.

Cumulative sum (CUSUM) charts can also be used to compare data. CUSUM charts may be more likely to detect a trend towards an out-of-control (incomparable data) situation quickly. The cumulative sum chart uses all the previous observations rather than just the last one. The sum of the deviations from the accepted mean of historical MOE data are carried forward cumulatively (Figure 2). This chart allows trends to be quickly identified and sources investigated.

SHEWART CHART OF MEANS

January 1996

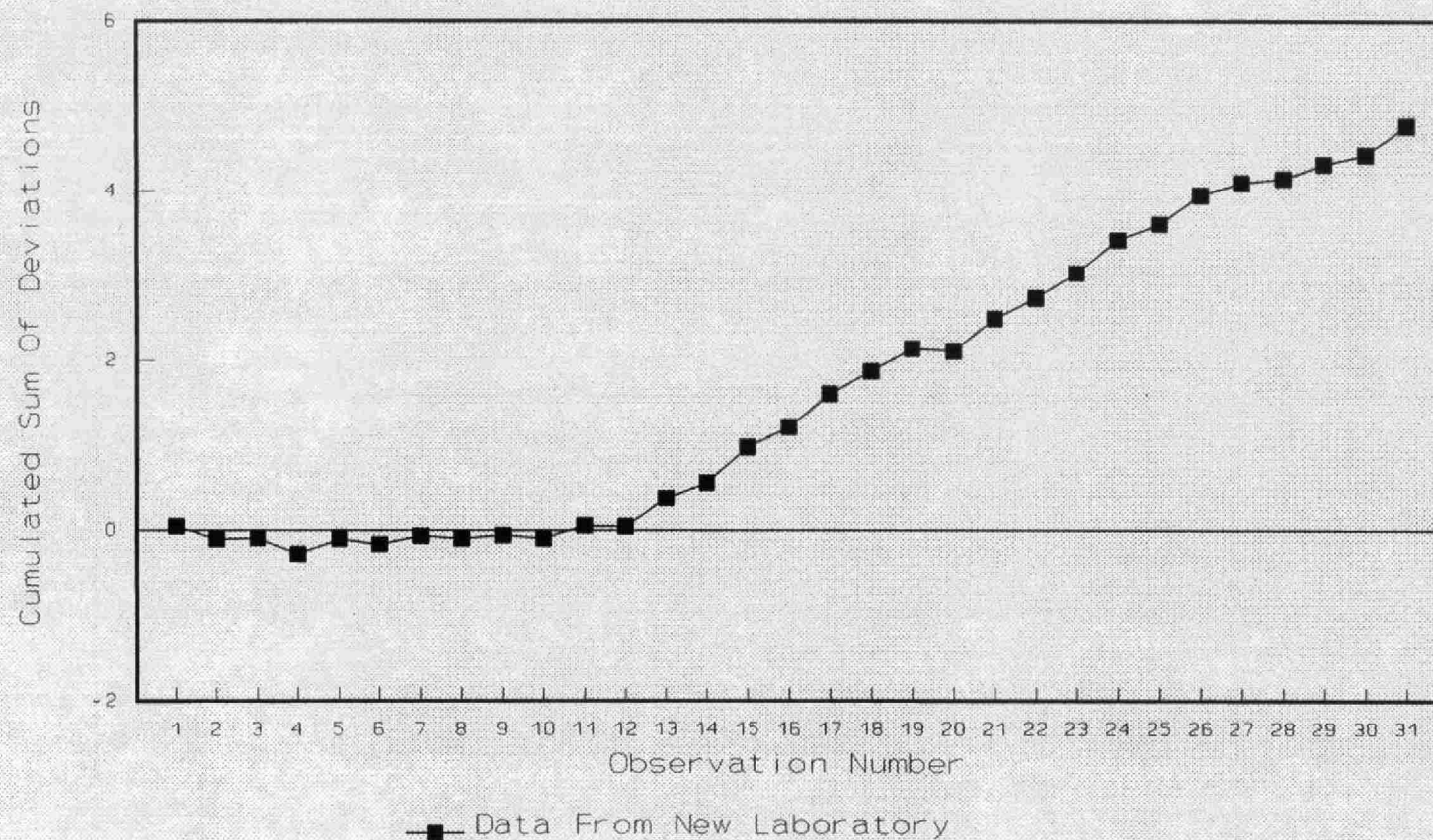


■ Observed Data from New Laboratory

J. Doe 123-4567

CUSUM CHART

January 1996



J. Doe 123-4567

APPENDIX G - LETTER OF CONTRACTUAL AGREEMENT

CONTRACTUAL AGREEMENT

BETWEEN

HER MAJESTY THE QUEEN IN THE RIGHT OF ONTARIO AS REPRESENTED
BY THE MINISTER OF THE ENVIRONMENT
(hereinafter called the "Crown")

PARTY OF THE FIRST PART

- and -

(hereinafter called the "Contractor")

PARTY OF THE SECOND PART

Designated Crown Representative _____ or such other person as may from time to time be designated by the Crown in writing.

Telephone: _____

Requisition Number: _____

Project Title: _____
In consideration of the provisions hereinafter set out, the parties agree as follows:

1.0 This Agreement and the Schedules hereto attached are subject to confirmation by the Crown issuing a Purchase Order.

2.0 ASSIGNMENT

The nature and extent of the work to which this Agreement pertains and the respective duties and obligations of the Contractor and the Crown are defined and described in Schedule One "Contractor's Work Program and Conditions" and, subject to the other

provisions of this Agreement, will be carried out in accordance with the Contractor's proposal.

3.0 APPOINTMENT

The Crown hereby appoints the Contractor to perform the Assignment described in Schedule One attached hereto and the Contractor hereby accepts such appointment and undertakes to perform the Assignment in accordance with the Contractor's Proposal in a good, workmanlike and professional manner and subject to the terms and conditions contained herein.

4.0 COSTS

The Crown hereby accepts the Contractor's estimated total cost for the Assignment not to exceed \$ _____ to be paid as outlined in Schedule Two attached hereto. (If the Ministry exercises its option to renew for two additional years cost for year 2 is not to exceed \$____ and cost for year 3 is not to exceed \$____. The total cost of this contract is not to exceed \$_____ for the three year period. The said amount includes all fees and disbursements of any persons appointed or assigned by the Contractor to assist in the execution of this Assignment. Unless otherwise agreed in writing and a purchase order confirming the new amount is issued by the Crown, the Crown is not liable for any costs in excess of this amount. The Contractor, and not the Crown, is liable for all fees and disbursements.

5.0 PAYMENTS

5.1 INVOICES

- 5.1.1 The Crown will pay the Contractor upon receipt of invoices from the Contractor in accordance with Schedule Two. Services will be compensated on a submission basis for results reported and approved by the Crown liaison officer. The Contractor will submit one invoice/month for work completed and reported to the Crown contract administrator.
- 5.1.2 At the discretion of the Crown contract administrator, the Crown will hold back an amount not exceeding ten percent (10%) of each invoice from the Contractor until the Assignment is satisfactorily completed and accepted by the Crown. Invoices are to be paid in full unless otherwise advised.
- 5.1.3 The Contractor will submit the following supporting documentation to the contract administrator with each invoice: list of completed submission numbers and corresponding sample numbers and tests analyzed.
- 5.1.4 The Crown is currently working on the production of a monthly LIMS cost summary report, which tracks workloads completed and associated costs.

At the time this report becomes available, the Contractor will be required to verify the information submitted and prepare their monthly invoice based on the report

- 5.1.5 In any disputes involving administrative matters such as sample numbers, throughput times, etcetera, the Crown's records will be deemed accurate.
- 5.1.6 The Contractor shall maintain proper financial records and books of account respecting services provided pursuant to this Agreement. These financial records and books of account may be inspected by the Crown both during and following the performance of this Agreement for a maximum of five years after performance is completed.
- 5.1.7 The Crown, or auditors appointed by the Crown, may examine and audit project related books, records, equipment and facilities of the Contractor or anyone working directly or indirectly for the Contractor for the purpose of the assignment to determine that all costs are reasonable and have been properly incurred for the purpose of the Assignment and that the Assignment is being or has been properly carried out.
- 5.1.8 In the event an overpayment is discovered by audit or otherwise, the amount of overpayment shall be credited to future payments hereunder or repaid to the Crown as determined by the Crown.

5.2 SAMPLE RESPONSIBILITY

The Crown will be responsible for the samples until their transfer to the representative of the contract laboratory at which point the contractor assumes responsibility. The Crown will reimburse the contractor for tests completed. They will not compensate for tests not reported due to loss or lab accident.

5.3 PENALTIES FOR DELAYS

- 5.3.1 There will be a penalty levied against the contracting laboratory for results reported beyond the contract turnaround time specified in Schedule One. Penalties for results reported late will be charged on a submission basis at the discretion of the Crown liaison officer and Crown contract administrator at a rate of 5% of the submission cost per day late or part thereof to a maximum of 20% of the submission cost (or at a rate of 20% of the submission cost per day late).
- 5.3.2 Under extraordinary circumstances, such as substantially increased test loadings from the Crown, or Crown requested changes in priorities, penalties may be relaxed or waived at the discretion of the Crown technical liaison officer. Agreement to relax or waive penalties must be obtained in writing.

- 5.3.3 The contracting agency will levy a penalty against the contracted laboratory for health-related exceedances not reported to the Medical Officer of Health, the MOE District office and the contracting agency, within a reasonable time frame.

5.4 REPEAT AND OTHER MOE REQUESTED ANALYSES

- 5.4.1 The Crown shall not be responsible for payment for repeat analyses caused by quality control data pertaining to the initial analyses being outside the prescribed limits or any other in-lab problem.
- 5.4.2 If Crown requested repeats confirm initial findings, they will be remunerated at normal rates.
- 5.4.3 The Crown will not be responsible for payment of initial analyses and corresponding repeats, if results are not deemed acceptable by the Ministry liaison officer.
- 5.4.4 The Crown shall not be responsible for payment of analyses for which repeats are not possible (or not conducted) and whose results are not deemed acceptable (eg. equipment failure) by the Ministry liaison officer.
- 5.4.5 Occasionally, repeat and additional (Crown field duplicates, Crown audit samples) analyses will be requested by the Crown liaison officer for reasons other than in-lab problems. These Crown requested analyses will be remunerated at the regular cost per test rate.

5.5 INTER-COMPARISON SAMPLES

The award of this contract is conditional upon completion of a successful inter-comparison. Only one inter-comparison will be run, unless otherwise indicated by the Crown technical liaison officer. Equivalence satisfactory to the Crown technical liaison officer and the Crown Quality Assurance Officer must be demonstrated. The Crown will pay half the cost for successfully completed inter-comparison work i.e. 50% of the test cost indicated in Schedule Two. The successful inter-comparison is defined as that which complies with the time frame, protocols and specifications established by Crown.

6.0 DATES

The Assignment shall commence on or about the ____ day of _____, 199_ and shall be completed not later than the ____ day of _____, 199_. The reasons for any extension required by the Contractor to complete any phase of the Assignment shall be documented and forwarded to the Crown as soon as the Contractor is aware that it may

be necessary to ask for permission for an extension and in any event prior to the original termination date of the phase of the Assignment or the Assignment and terms and conditions of any such extension shall be agreed upon in writing by the parties. Unless an extension is agreed to in writing by the Crown, the Contractor may not extend the time for completion.

7.0 PROGRESS AND FINAL REPORTS

The Contractor will provide:

- (a) verbal reports to the local Medical Officer of Health, the MOE District office and the (contracting agency) of any exceedances of health-related parameters to the Certificate of Approval limits or the Ontario Drinking Water Objectives as soon as the results are known.
- (b) such exceedances should be flagged in the data reports sent to the contracting agency.
- (c) oral or written progress reports from time to time at the request of the Crown representative at the cost of the Contractor.
- (d) such other reports as are provided in Schedule One.

8.0 PERSONNEL AND FACILITIES

- 8.1 The Contractor is responsible for performing the tasks for the Assignment as described in Schedule One. The Crown representative, on a consultative basis, and the Crown files pertinent to the Assignment will be available to the Contractor.
- 8.2 The Contractor will perform the Assignment at the Contractor's premises or any other facilities provided at the Contractor's expense and approved by the Crown but may periodically visit the Ministry office for pick-ups and deliveries or to consult with Crown personnel.
- 8.3 The Contractor shall not change principal professional staff, consultants, sub-contractors or analytical instrumentation during the course of the contract or the rate chargeable as defined in Schedule Two without the written consent of the Crown.

9.0 LIABILITY

- 9.1 The Crown and its representatives shall not be responsible for any injuries or property damage suffered or caused by the Contractor or any sub-contractors or any

- of their associates, officers or employees while performing the Assignment. The Contractor shall be responsible for insuring personnel and both Contractor and Crown-owned equipment for any loss or damage, and must conform to Provincial Environmental, Health and Safety Standards.
- 9.2** The Contractor shall indemnify the Crown for any damages to property or persons and any claims against the Crown, arising out of the carrying out of the Assignment.
- 9.3** In this section, "Crown" includes the Minister of the Environment and any officer and employees of the Ministry of Environment and public servants employed with the Ministry of Environment.

10.0 PREMATURE TERMINATION

- 10.1** If the Contractor is guilty of serious professional misconduct in the opinion of the Crown, or neglects, fails or refuses to carry out the Assignment in other respects, the Crown may terminate work under this Agreement with one month's notice.
- 10.2** The Crown may terminate work under this Agreement by one month's written notice at any time, for reasons not specified in Subsection 10.1 and its only obligation will be to pay the Contractor for all work done to the date of cancellation and for any future expenses with were to be paid for under this Agreement and which the Contractor remains legally obliged to pay in connection with the Assignment and for which the Contractor is not otherwise reimbursed.
- 10.3** The Contractor may terminate work under this Agreement for any reason with a one month advance notice in writing to the Crown representative. In such an event, the Crown shall determine what, if any , portion of the payments made prior to the date of termination the Contractor may retain.

11.0 DOCUMENTS AND MATERIALS

- 11.1** Materials, documents, data and working papers relating to the Assignment shall be the property of the Crown and shall be surrendered to or disposed of as instructed by the Crown representative upon completion and acceptance of the Assignment or termination of work under this Agreement for any reason whatsoever. Computer generated analytical data will be stored on floppy disk, magnetic tape or other electronic storage media. Such data will not be erased unless written permission is received from the Crown technical liaison officer. Disposal of samples and sample extracts will be the responsibility of the Contractor however, written approval for their disposal will be obtained from the Crown technical liaison officer. The Contractor shall return to the Ministry any samples or sample extracts for further analysis when requested by the Crown representative.

- 11.2 The Contractor shall return to the Crown at the termination of work under this Agreement in good condition, reasonable wear and tear only excepted, all equipment and non-consumable supplies of the Crown loaned to the Contractor for the Assignment and all equipment and non-consumable supplies purchased by the Contractor for the Assignment at the Crown's expense.

12.0 SECURITY, CONFIDENTIALITY AND INDUSTRIAL PROPERTY

- 12.1 The Contractor will act as an independent contractor and not as a servant or agent of the Ministry of Environment.
- 12.2 Subject to Subsection 3, no information received or developed by the Contractor in connection with this Agreement shall be disclosed by the Contractor to anyone other than the Crown without the consent of the Crown.
- 12.3 Subject to any requirements to protect or perfect any patent rights, the Contractor may publish any material alone or jointly with the Crown one year after completion of the Assignment provided that (unless the Crown Representative otherwise directs) the participation of the Crown in carrying out or financing the work is acknowledged.
- 12.4 "Patent rights" where used in the Agreement include any patentable or secret formulae, patents, inventions, discoveries and improvements, whether patented or not, and any material subject to copyright and any industrial design or other industrial property and the word "patent" includes patents, additions to, amendments to, extensions of, restorations of and reissues of patents, copyrights and registrations of industrial designs or other industrial property.
- 12.5 All patent rights resulting from experiments or research or operations connected with the Agreement and all patents and applications for patents in respect thereof shall belong to the Crown.
- 12.6 The Contractor shall have a royalty-free non-exclusive licence to use and exercise and have used and exercised any patent right mentioned in Section 13 for further research and development provided the results of such research and development are reported to the Crown in writing.
- 12.7 All reports and other documents and materials prepared by or for the Contractor for or arising out of this Assignment shall bear the legend:

*c 199 - Her Majesty the Queen in Right of Ontario
as Represented by the Minister of Environment*

unless the Crown Representative otherwise directs in writing, as well as an acknowledgement to the Crown for providing the funding support and a disclaimer as indicated below.

Acknowledgement and Disclaimer

This report was prepared for the Ontario Ministry of Environment as part of a Ministry funded project. The views and ideas expressed in this report are those of the author and do not necessarily reflect the views and policies of the Ministry of Environment, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. The Ministry, however, encourages the distribution of information and strongly supports technology transfer and diffusion. Any person who wishes to republish part or all of this report should apply for permission to do so to the Laboratory Services Branch, Ontario Ministry of Environment, 125 Resources Road, Etobicoke, ON, M9P 3V6, Canada.

- 12.8 The Contractor and any persons working on the Assignment shall cooperate in any action needed to perfect or record any patent rights in the name of the Crown.

13.0 ENTIRE AGREEMENT

This Agreement shall enure to the benefit of and be binding upon, the parties and their administrators, successors and assigns, and shall not be assigned by the Contractor without the written approval of the Crown.

- 13.1 Where any conflict of inconsistency appears between a provision of any of the documents listed below which form part of this Agreement and a provision in another of the documents, the provision in the first mentioned document shall govern:

- (a) Purchase Order
- (b) This Document
- (c) Schedule One - Contractor's Work Program and Conditions
- (d) Schedule Two - Costs

- 13.2 This Agreement, including the documents listed in Subsection 13.1, constitute the entire Agreement between the parties.

- 13.3 The designation of the Crown Representative may be changed at any time by notice, in writing, to the Contractor.

14.0 WAIVER

The failure by the Crown to insist in one or more instances upon the performance by the Contractor of any of the terms or conditions of this Agreement shall not be construed as a waiver of the Crown's right to require further performance of any such terms or conditions, and the obligations of the Contractor with respect to such future performance shall continue in full force and effect.

15.0 SUPPORT SERVICES

Typing, photocopying and other office support activities are the responsibility of the Contractor.

16.0 CONDITIONS

16.1 In the event of a disagreement with respect to any provision of the Agreement, either party may ask the other to refer this disagreement to one or more mutually agreeable persons as a review panel.

16.2 Section 16.1 does not prevent either party from taking legal action in connection with this Agreement.

This Agreement has been executed under seal by the Contractor and by the authorized signing official of the Ministry of Environment on:

_____ day _____ month _____ year

By: _____
on behalf of the
Ministry of Environment

By: _____
on behalf of the Contractor



(7503)

QD/51/G855/MOE

QD/51/G855/MOE
Ontario Ministry of Enviro
Guidance document:
selecting an aijj
 c.2 a aa